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ABSTRACT

This document reviews the history of compensatory education programs under the Education Consolidation and Improvement Act (Chapter 1), assesses the programs' current status, and speculates on their future paths. Part 1 is a historical review of compensatory education, identifying strategies, programs and services provided, ways it has been evaluated, and the target population it has served. Part 2 discusses the following instructional strategies used in compensatory education programs: (1) pull-out programs; (2) add-on programs; (3) in-class programs; and (4) replacement programs. Problems of instructional coherence are identified. The history of compensatory education has been essentially one of curriculum differentiation rather than pedagogical differentiation. Part 3 addresses issues pertaining to the curriculum, including the coordination of regular and compensatory education classes, and curricula to improve cognitive development; and reading, mathematics, and thinking skills. Part 4 addresses the following topics pertaining to teachers, teaching, and classroom environment: (1) active instruction; (2) relevance; (3) bilingualism and language instruction; (4) cultural pluralism; (5) classroom organization; (6) nurturing the gifted; (7) student grouping; (8) parent involvement; and (9) accelerated schools for at-risk students. Part 5 is a summary. Chapter 1 programs and services consist mostly of pullout programs for remedial reading and mathematics, but they by no means comprise the whole of the nation's compensatory education efforts. A 24-item list of references is included. (BJV)

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A. Harry Passow

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CURRICULUM AND INSTRUCTION IN CHAPTER 1 PROGRAMS: A LOOK BACK AND A LOOK AHEAD

A. Harry Passow

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CURRICULUM AND INSTRUCTION IN CHAPTER 1 PROGRAMS: A LOOK BACK AND A LOOK AHEAD

INTRODUCTION

It is approaching a quarter of a century since the Elementary and Secondary Education Act (ESEA) of 1965 was passed, the first major federal legislation authorizing funds for compensatory education. In Title I of ESEA, Congress declared it to be "the policy of the United States to provide financial assistance...to local educational agencies serving areas with concentrations of children from low-income families...." In the Education Consolidation and Improvement Act (ECIA) of 1981, Chapter 1 replaced Title I, modifying some of the federal funding requirements but leaving the program functions essentially intact. Funding has grown to almost $4 billion ($3.9 billion in 1987) and Chapter 1 continues to be the cornerstone of America's compensatory education efforts—programs designed to close the gap between the disadvantaged and other students.

From the outset, Title I was controversial, and Chapter 1's effectiveness continues to be debated. For instance, in his message to Congress on educational reform five years after Title I had become law, President Richard Nixon commented on the "series of ambitious, idealistic, and costly programs for the disadvantaged based on the assumption that extra resources would equalize learning opportunity and eventually eliminate poverty"; he observed that a few such programs had dramatically improved educational achievement, many had provided important auxiliary services such as better nutrition and medical care, and some

programs may have helped prevent some children from falling even further behind. However, President Nixon concluded, "the best available evidence indicates that most compensatory education programs have not measurably helped poor children catch up" (Menges, n.d., p. 14).

THE HISTORY OF COMPENSATORY EDUCATION

What has been the purpose of compensatory education programs? The National Institute of Education (1978) Compensatory Education Study observed in its *Executive Summary* that compensatory education is:

> one of the Nation's most important efforts to equalize educational opportunity. The concept stems from the recognition that children from disadvantaged backgrounds frequently do not enjoy the same educational benefits as their peers. Many attend schools in districts that have low overall revenues or high concentrations of disadvantaged families...Compensatory education is intended to ease those problems by providing disadvantaged children with additional services to help them complete their education on more equal terms (National Institute of Education, 1978, p. 1).

In fact, a wealth of data has demonstrated that school districts with large concentrations of children from disadvantaged backgrounds have substantially lower academic achievement levels, higher dropout rates, lower college entrance rates, higher representation in special education programs, higher teen-age pregnancy rates, poorer school attendance rates. But, despite a quarter of century of compensatory and remedial education, there is no consensus on the causes for these differentials in educational performance, although a number of theories and hypotheses serve as the bases for compensatory education programs and activities.

Even the notion of *compensatory education* has no single definition nor is it a single program or set of practices. As Carter (1984) observed in one of the 20 reports which comprised the Sustaining Effects Study evaluating Title I: "There is no simple explanation or description of compensatory education (CE); it is an amalgam of many different programs, practices, and services" (p. 5).

Strategies. The more than 30,000 Title I projects across the nation reflect diverse treatments which are not readily converted into overarching objectives or successful program models. A 1970 overview (Passow, 1970) of the general

patterns and strategies of compensatory efforts—including Title I funded programs—indicated a broad range and diversity of programs and activities attacking some aspect of the urban education problem. Many of these same "intervention strategies" are still found almost two decades later.

1. *Infant education and intervention in family life*—various efforts aimed at changing child-rearing relationships between parent (usually the mother) and the infant, often involving the mother as a direct teacher.

2. *Early childhood education*—preschool programs ranging from traditional nursery and kindergarten practices through highly structured, academic oriented programs designed to develop specific skills for learning; largest number of such programs included in Head Start.

3. *Reading, language, and basic skills development*—new curriculum, methodologies, materials, personnel deployment, and "systems" designed to improve the reading and basic skills performance of disadvantaged children.

4. *Bilingual education*—programs designed for pupils whose native language is other than English or whose dialect and speech are so divergent as to be considered nonstandard; instruction in the native language and teaching of English as a second language.

5. *Curriculum relevance*—modifications of existing courses and introduction of new courses that have a more direct relationship to "the world the student knows"; addition of programs dealing with significant current social, political, economic, and personal problems.

6. *Compensatory and remedial programs*—programs aimed at presumed or real deficiencies in disadvantaged learners; remedial activities designed to overcome poor performance in basic areas; cultural enrichment programs aimed at broadening horizons of inner-city pupils.

7. *Guidance and counseling*—guidance, psychological, and therapeutic services adapted to the needs of disadvantaged pupils and their parents; addition of social workers and community agents to bridge gap between school and family.

8. *Tutoring programs*—individual and small-group tutoring by professionals, paraprofessionals, and volunteers, adults and youth, based in school or non-school agency or institution.

9. *Testing, measurement, and evaluation*—efforts made to develop more effective diagnostic and evaluation procedures that service instructional rather than selection functions; reappraisal of grouping and tracking procedures; development of more appropriate grading procedures; sensitization of staff members to the consequences of expectations from grading and testing procedures.

10. *School organization*—extended school days, extended school years, year-round schools, team teaching, ungraded programs, open classrooms, modular scheduling, flexible grouping to replace rigid tracking systems.

11. *Instructional materials and resources*—production of new multi-media instructional resources aimed at inner-city students; increase in the availability of multiracial, multi-ethnic, multi-social class, multi-level, urban oriented materials; development of resources dealing with the racial and ethnic experience in America.

12. *Vocational education, dropout prevention, and return programs*—compensatory and remedial programs, additional counseling and guidance, addition of social and community workers, vocational preparation in and out of school, and revised vocational-technical programs specifically designed for the 16-to-21-year-old group.

13. *Urban school staffing*—programs aimed at recruitment, training, induction, retention, and continuing education of all professional personnel at pre- and inservice levels; development of new relationships and programs between colleges and school systems, between industries and schools; attention to attitudes and expectations; new staffing patterns; addition of various kinds of "specialists" in schools.

14. *Auxiliary school personnel*—programs aimed at recruiting, training, and involving professionals, volunteers, and aides in a variety of educational and supportive services; building of new careers and career ladders in the realm of public service; involvement of parents and volunteers in teaching programs.

15. *Post-secondary and higher education*—high school programs aimed at motivating and preparing disadvantaged youth for college; development of new selection and admissions procedures; provision of services to smooth transition from school to college and increase success chances; modification of college curriculum to increase relevance for minority groups; expansion of opportunities for higher education through new institutions.

16. *Community school and community development*—development of schools as educational, neighborhood and community services, and community development centers; programs involving joint school and community agencies in attacking urban problems.

17. *Desegregation and integration*—programs designed to correct racial and ethnic imbalance, *de jure* and *de facto*, and to provide for a more integrated, pluralistic school society; counter-drive for separatism and for local control of schools, sometimes as an end and sometimes as an interim step toward pluralism.

18. *Decentralization and community control*—programs designed to bring decision-making closer to the community and redistribute power and control; efforts to establish accountability for effectiveness of teaching and schools.

19. *Alternative schools and school systems*—proposals for establishing competitive systems, private and public; provisions for "education by voucher," establishment of alternative schools within public and nonpublic sector; initiation of performance contracts with nonpublic school companies and agencies.

20. *Federally supported or assisted programs*—programs authorized by federal legislation, such as ESEA (particularly Titles I and III) and programs such as Job Corps, Neighborhood Youth Corps, Upward Bound, National Teacher Corps, Head Start, Manpower Development, and Training Programs; various programs of categorical aid and assistance with desegregation.

21. *Allocation of educational resources*—efforts through court litigation and pressures for new legislation to correct intra-state and intra-district inequalities in allocation of educational resources; substantial additional funding for some ghetto school (e.g., More Effective Schools Program) (Passow, 1970, pp. 28-29).

These program interventions and strategies can be categorized or catalogued by target population, nature of services or treatment, locus of activities, basic intent of intervention, focus of diagnosis or prescriptive activities, or source of funding. The catalog sets are not mutually exclusive and many, if not most, programs and projects fit into more than one set. Some programs are quite specific (e.g., a Head Start class for 15 four-year-olds) while others are more comprehensive (e.g., an alternative set of magnet schools). Most compensatory programs are additive. Some deal with curriculum and instructional strategy changes, others with personnel or organizational changes. Most are school-based but a good many are community-based.

While Title I/Chapter 1 programs are found at all levels—preschool, elementary and secondary—the majority have been concentrated at the preschool and elementary education levels. As Natriello et al. (1987) have observed, funds have "been used to develop special curricula for enhancing cognitive skills, especially the subjects of reading, writing and arithmetic...to provide classroom aides and for the recruitment and training of teachers who specialize in teaching disadvantaged student...[and on] health and nutritional services" (p. 52).

Programs and Services. The emphasis has been on the basic skills of reading and mathematics and small group instruction in a pullout setting, with the nature and content of services determined by the individual school district or even individual schools. An analysis of the various instructional and supporting services

provided almost five million pupils in Chapter 1 programs in 1983-84 showed the following distributions: *instructional*—reading (75%), mathematics (46%), language arts (22%), other instructional areas (9%), limited English (12%), and vocational (1%); and *supporting*—health and nutrition (15%), attendance and guidance (17%), other supporting (7%), and transportation (5%). Since students could receive services in more than one area, the percentages total more than 100.

The improvement of reading and language skills was sought through new curricula, teaching methods, instructional materials, personnel deployment and "instructional systems." New basal reader series and supplementary materials were produced, including self-instructional programmed materials, reading aids, and mechanical devices. Whole new "reading systems" were designed. New technologies included language laboratories, talking typewriters, individualized teaching machine devices and computer-aided instruction. Professionals and para-professionals were used in a variety of teaching and tutoring situations. Various publishers and industrial groups produced new materials aimed at enhancing "curricular relevance," stressing cultural pluralism.

Evaluation. An evaluation component was a requirement for funding of Title I and Chapter 1 programs. However, the diversity in programs and services, in the ways and means that the programs and services are delivered, in the goals and objectives, in the populations involved and served, in the levels and sources of funding, and in other dimensions, make generalizations about the effectiveness of compensatory education difficult.

Nevertheless, over the years, a number of studies have been done on the effectiveness of Title I and other compensatory programs with the results equivocal at best. A sampling of these are reviewed below.

Mullins and Summers (1983) examined some 47 studies conducted between 1969-1980 (most in the late 1960s and early 1970s) on the overall effectiveness of compensatory education. Their major conclusions were as follows:

- The programs have a positive, though small effect on the achievement of disadvantaged students.

- The results of most studies are overstated because of the upward biases inherent in several standard statistical procedures.

- The gains appear to be greater in earlier years, and the evidence is fairly strong that early gains are not sustained.

- No significant association exists between dollars spent and achievement gains.

- No approach or program characteristic was consistently found to be effective (Mullins & Summers, 1983, p. 339)

Mullins and Summers (1983) also noted that "the evaluation literature is so vast and its results so varied that virtually any hypothesis can be supported by a number of studies" (p. 339), and that we seemed to know what doesn't work but are not certain what will work. Nevertheless, they believed there were strong arguments for three policies:

- Spend compensatory education funds on greater number of low achievers, rather than spend more money on the same number of students.

- Rearrange specific inputs, rather than add new ones. Studies have found some practices particularly effective; others are likely to be particularly ineffective. The appropriate policy is not just to add to the effective ones but also to subtract from the ineffective ones.

- Allow a range of compensatory education programs to exist. Since the evidence suggests that no one program will work across the country and for all years of schooling, it is likely that only programs developed for specific categories of children with specific socioeconomic backgrounds will be effective.

Another example of the complexities of evaluating Title I is found in the 20 separate reports which comprised the Sustaining Effects Study (SES), described by one of its authors (Carter, 1984) as the "largest and most comprehensive evaluation of the effectiveness of Title I ever undertaken" (p. 6). Carter observed at the outset that Title I was a massive funding program, not a unified or coherent treatment program, with students receiving a variety of services delivered in very diverse ways. One of the conclusions of the study was that "Title I was effective for students who were only moderately disadvantaged but it did not improve the

relative achievement of the most disadvantaged part of the school population" (p. 12).

One specific criterion for judging the effectiveness of Title I programs has been the extent to which the achievement gap between the advantaged and disadvantaged has been closed. When the National Assessment of Educational Progress (NAEP) reported that "Students with poor academic track records made some big gains in reading—and held their own in mathematics and science—over the course of the seventies," a panel of experts attributed these gains to compensatory education programs such as Title I (NAEP, 1983, pp. 1-2). Levin's (1987) observation about the effects of compensatory education was more moderate:

> Although there is some evidence that the gap between disadvantaged and non-disadvantaged student achievement has narrowed slightly in the last two decades, the gap is still considerable. Typically, the disadvantaged are performing at the 25th percentile or lower, and their probability of completing secondary school is only about fifty percent (pp. 6-7).

When Chapter 1 superseded Title I, it retained the same purpose: "to continue to provide financial assistance to State and local educational needs of educationally deprived children, on the basis of entitlements calculated under Title I of the Elementary and Secondary Education Act of 1965..." (Kennedy, Jung, & Orland, 1986, pp. 1-2).

In December 1983, Congress mandated an assessment of Chapter 1 which was to deal with "services delivered; recipients of services; background and training of teachers and staff; allocation of funds (to school sites); coordination with other programs; effectiveness of program on students' basic and higher order academic skills, school attendance, and future education; and a national profile of the way in which local educational agencies implement activities" (Kennedy, Birman, & Demaline, 1986, p. iii).

The three National Assessment of Chapter 1 studies comprised one of several major research projects and conference reports reviewed by Ascher (1987), who observed: "In no area of research on either program or results do the [ten] reports come to exactly the same conclusions—although there are some developing

consensuses" (p. 3). Ascher discusses the findings as they dealt with "the targeting of Chapter 1 to those students who need its services; the structure of Chapter 1 programs, and their integration into the schools; the curriculum and instruction used in Chapter 1 classrooms; and parent involvement by Chapter 1 families" and concludes with a review of "the mixed findings regarding short- and long-term effectiveness of Chapter 1" (p. 3).

In one National Assessment study, Kennedy, Birman, et al., (1986) reviewed evidence concerning disadvantaged children and found that "the achievement of disadvantaged children has improved since 1965, especially in reading, relative to the achievement of the general population" (p. vii). Although Chapter 1 students experience larger increases in standardized achievement test scores than comparable students who do not receive such services, the gap between their achievement levels and those of more advantaged students has not closed substantially. Chapter 1 students who participate in mathematics programs gain more than those participating in reading programs. Those who participate in early Chapter 1 programs gain more than those in later-grade programs. The evidence of program effects on student attitudes toward school is inconclusive. No adequate methods have been developed for ascertaining the relationship between standardized achievement scores and program costs (pp. vii-viii).

As for the longer-term effects, Kennedy, Birman, et al. (1986) found that the achievement gap between disadvantaged and advantaged students widened during the summer months and that summer programs, most of which were not very academically rigorous, did little to narrow the gap. Those students who discontinue Title I tend to slowly lose the gains they made when receiving services. Chapter 1 students with very low achievement scores tend to maintain that relative academic position rather than move ahead, although the evidence suggests that they would have fallen even further behind had they not received services. Kennedy, Birman, et al. reported that thus far "no nationally-representative studies have examined the long-term effect of Chapter 1 programs on graduation rates, future education, or adult literacy" (p. viii).

Target Population. With respect to the issue of who should receive Chapter 1 services, Ascher notes that Kennedy, Jung, et al.'s (1986) National Assessment

study of Chapter 1 showed "the strong link between poverty of the school and its student achievement, and so provides clear support for Chapter 1 legislation that emphasizes first poverty and then achievement in the dispensation of Chapter 1 services" (p.4). They found further that it is the intensity of the poverty experience—"the length of time the child spends in poverty and concentration of poor children attending the child's school" (p. 6)—which is strongly related to educational outcomes; that black children and minorities are "experiencing a qualitatively different form of poverty than other poor children experience" (pp. 7-8); and that poor children move twice as frequently as the nonpoor. They concluded that "students were increasingly likely to fall behind grade levels as their families experienced longer spells of poverty, and that achievement scores of all students—not just poor students—declined as the proportion of poor students in a school increase" (p. 107). These findings regarding the correlation between the intensity and longevity of poverty and the higher proportion of the poverty population and low achievement scores have significant implications for curriculum and school/classroom climate which seemed not to have received adequate attention.

With respect to the issue of whether Chapter 1 services go to those who most need them and whether there are needy students who are not served, the National Assessment concluded "that Chapter 1 provisions are concordant with those most in need, as defined by poverty and race, but that low achievers have been less well served" (Ascher, 1987, p. 5). The National Assessment study reported that over half of the students who were both poor and reading below the 50th percentile, and 60 percent of students who scored below the 25th percentile, were not receiving compensatory education services, while 11 percent of Chapter 1 participants scored above the 50th percentile (Ascher, p. 6). The issue of providing services to the students socioeconomically disadvantaged (i.e., poor) vis-a-vis the educationally disadvantaged when the two do not overlap continues to concern decision-makers and practitioners alike.

INSTRUCTIONAL STRATEGIES

How Chapter 1 services are delivered can have a significant impact on their effectiveness. While four distinctive delivery strategies have been used predominantly, there are corollary practices that also affect learning.

Basically, schools are using one or more of these four approaches to provide Chapter 1 services:

> *Pullout* programs that provide instruction in locations outside the regular classroom.
>
> *Add-on* programs that provide instruction at times other than the regular school day or year (before or after school, before kindergarten or during the summer).
>
> *In-class* programs that provide services to students within their regular classrooms.
>
> *Replacement* programs that provide to Chapter 1 students all the instruction they are to receive in a given subject area, usually in a separate class including only compensatory education students (Ascher, 1987, p. 11).

Pullout Programs. These constitute the most commonly used approach in compensatory education programs. Carter (1984) summarized the arguments for pullout programs as follows:

> The pullout setting seems to offer a positive learning environment; when compared to regular instructional settings, pullout was associated with smaller instructional groups, higher staff-to-student ratios, more student on task behavior, less teacher time in behavioral management, a more harmonious classroom atmosphere, fewer negative comments by teachers, and a higher quality of cognitive monitoring, ontask monitoring, and organization of activities (p. 5).

However, Carter notes that pullout programs can also have unintended negative consequences: (a) *decreased instructional time* due to moving to a different location and to time devoted to special compensatory education services; (b) *fragmentation* due to students' failure to make the connection between the subject taught in the regular classroom and in the Chapter 1 setting; (c) *stigma* attached to students who are pulled out of regular classes for special instruction, resulting lower expectations and simpler assignments from regular teachers; (d) *lack of communication and coordination* between the regular teacher and the Chapter 1

teacher; and (c) *segregation* as minority students are pulled out of less segregated classrooms to receive Chapter 1 services in more segregated pullout classrooms (Carter, 1984, p. 5).

Add-On Programs. Pre-kindergarten, kindergarten, and summer school programs constitute the most commonly used add-on programs. Two publications—*Lasting Effects after Preschool* (Lazar & Darlington, 1978) and *Found: Long-Term Gains from Early Intervention* (Brown, 1978)—reported favorably on the short- and long-term gains of add-on early childhood programs. Based on the reports of the 12 research groups which constituted the Consortium for Longitudinal Studies, Lazar and Darlington (1978) concluded that "the preschool programs directed by Consortium members had substantial and lasting effects on the school performance of low-income children" (p. 175). Reviewing some 96 studies with findings of positive impact, Brown (1978) concluded that there is "compelling evidence that early intervention works, that the adverse impact of a poverty environment can be overcome by appropriate treatment" (p. 179). Brown suggested that the question, "Do pre-school and early childhood programs work?", should no longer be asked, but rather: "How does it work? For whom does it work? How can it work better?" (p. 179).

The programs analyzed by Lazar and Darlington and by Brown—all experimental programs, not typical operating programs—are not of a single mold. They represent a tremendous range and variation in goals and objectives, conceptual design, curriculum, strategies, and resources. All were aimed at increasing poor children's in-school academic achievement. Many also had affective goals such as developing more positive attitudes toward school and

schooling on the part of the children and their families, and enhancing feelings of self-worth. To lump together these very diverse programs under the rubric or pre-school and early childhood programs masks the differences among the various programs—e.g., traditional nursery, structured academic, cognitively-oriented, Montessori, concept development, affective, to cite a few. The Planned Variations Study of the Follow Through Program represented a unique effort to study the effects of a variety of educational models with a range of practical and theoretical alternatives—structured-unstructured, cognitive-affective. For instance, on the basis of comparing seven Follow Through model programs, Stallings (1975) concluded that structured classrooms with teachers using systematic instruction resulted in higher mathematics and reading scores while flexible classrooms that provided options and choices for children resulted in higher scores on a nonverbal reasoning test and a willingness of children to work independently.

In-Class Programs. The arguments for in-class Chapter 1 services and programs are essentially those which are used against the pullout programs—they reduce transportation time, reduce stigma and lowered expectations, reduce fragmentation through articulation of regular and compensatory education instruction, and avoid further segregation. However, Chapter 1 in-class programs are relatively rare, as are replacement programs.

Replacement Programs. For the most part, replacement programs consist of reading and/or math programs which last the equivalent of a class period although, particularly at the first grade level, some districts have day-long replacement programs (Ascher, 1987, p. 14).

Instructional Coherence. Kennedy, Birman, et al. (1986) argue that because of its supplementary nature, even high quality Chapter 1 instruction and services may not be adequate to compensate for the poor teaching and learning which takes place during the bulk of the day in the regular classroom. They note that creation of a separate cadre of teachers, who have different goals, duties, and responsibilities from the regular classroom teachers, may actually contribute to the lessening of the coherence of the total educational experience for the student. Research suggests that Chapter 1 services should not be only supplementary, and that students and teachers should not be isolated from the rest of the school program. The issue raised is whether, recognizing that the limitation on using Chapter 1 funds for supplemental services only provides benefits such as better student-teacher ratios for some student, eliminating that restriction would actually lead to the improvement of the regular program without negatively affecting benefits now realized.

Levin (1988), in a paper prepared for a National Assessment conference, asserted that the dominant pullout and remedial aspects of services of compensatory education actually keeps students from becoming academically able since:

> 1) it institutionalizes them as slow learners, thus reducing expectations for their success; 2) it slows down the pace of instruction so that they get farther and farther behind their peers; 3) it emphasizes the mechanics of basic skills without giving them the substance that will keep them interested and motivated; it provides no way to close the achievement gap between disadvantaged and advantaged students; and 5) it does not help teachers and parents formulate strategies to improve the learning (Levin, 1988, p.2).

It is for these reasons that Levin has designed and is implementing a program aimed at accelerating learning of disadvantaged students so that they will become academically able early on in their schooling. (His Stanford Accelerated Schools Project will be discussed below.)

CURRICULUM

The history of compensatory education has been essentially one of curriculum differentiation rather than pedagogical differentiation. Chapter 1 students have been exposed to different curricula—basic mathematics instead of algebra, vocational rather than technical programs, etc.. Goals and objectives have differed for disadvantaged students. Levin (1987) observes that disadvantaged students enter schools with a learning gap in those areas schools value and that they are unable to maintain a normal instructional pace until they acquire knowledge and learning skills. Thus, he notes, "such youngsters are placed in less demanding instructional settings—either by being pulled-out of their regular classrooms or by adapting the regular classroom to their 'needs'—to provide remedial or compensatory educational services. This approach appears to be rational and compassionate, but is has exactly the opposite consequences" (p. 8). In Levin's view, this process lowers the learning expectations of both students and teachers, stigmatizes them with a label of inferiority, is not really designed to bring students up to grade level and close the achievement gap, slows the pace of instruction and places an emphasis on "endless repetition of material through drill-and-practice" (p. 10).

Despite such sweeping indictments of the quality of Chapter 1 curricula, most research efforts have focused on other program aspects: those which deal with the

targeted populations, delivery of services, program an staffing structures, and parent involvement. Far less is available on learning styles, curriculum, instructional strategies, and other elements of the teaching-learning process, including school and class climate. Gordon's 1970 observation—"in contrast to the rather well-designed and detailed research into the characteristics of disadvantaged groups, the description and evaluation of educational programs and practices for these children have generally been superficial" (p. 8)—is still accurate.

With the bulk of Chapter 1 services devoted to improving the achievement of the disadvantaged in reading and mathematics, the curricula for these subject areas are crucial. But only part of the total curriculum for children and youth should focus on achievement—a sound educational program provides for learning opportunities in a broad array of disciplines and topics, in both cognitive and affective areas, in skills of learning how-to-learn and learning how to be a "student."

Given this belief, there seems to be a growing recognition that curriculum and instruction for Chapter 1 students may actually be dysfunctional. As Doyle (1986) has put it:

> *[T]he conventional wisdom of instructional design for compensatory education is wrong*. Mastery-type plans with their emphasis on small steps through the content may well prepare students to do well on standardized achievement tests. But serious questions are being raised concerning the validity of this criterion for judging what students know and are able to do. Compensatory students are getting higher scores on standardized tests, but their ability to do school work independently is not improving...the instructional designs typical of compensatory education fragment the curricular experiences of students and, thus, fail to provide them with the coherent mental representations necessary to do school work. Under such circumstances, the content and norms of behaviors in low-achieving groups [are] not geared to advancement into regular school programs (Doyle, 1986, p. IV-269).

While there may be questions about the quality of the "regular school program" as found in *A Nation at Risk* (National Commission on Excellence in Education, 1983) and the numerous other reports of the 1980s urging school reform, for disadvantaged students one goal has always been that the gap between their achievement and that of the advantaged population be closed and that they be enabled to join the educational mainstream. Improving the achievement of Chapter 1 students in the so-called basic skills areas of reading, writing, and mathematics is necessary but not sufficient. In this respect, the more "on target" compensatory education programs have attempted to deal with the broader cognitive needs of disadvantaged students—their thinking, feeling, and learning how-to-learn skills, as well as their decoding and computational skills—and to make science, social studies, health, nutrition, the arts and other components of the general education curriculum more "relevant" and therefore for meaningful.

Because there are education needs on several different levels—ranging from specific instruction in basic skills to the creation of an overall climate for learning and achievement—for the spiral of low achievement to be reversed, curriculum should be considered on a coordinated, multi-level basis. Evaluations of Chapter 1 "effectiveness," however, are usually limited to improved scores on reading and arithmetic tests and fail to deal with the overall achievement of students but, in this respect, they subscribe to generally accepted standards for "educational accountability."

Coordination between Regular and Compensatory Education Classes. Most studies indicate that there are few efforts to coordinate various special or

supplementary programs with core or regular programs. Seldom are there procedures for cooperative/joint planning among the various content area and categorical program teachers at the building level and, even more rare, are there district- or building-level policies which would foster cooperative planning among the various suppliers of programs or services. The consequence of this lack of coordination is that students served by various Chapter 1 programs often end up with *less* instructional time than students not served by such programs. For instance, regular classroom teachers often report that Chapter 1 reading resource teachers rarely offer instructional information, suggestions, or materials. Formal or informal discussions between regular classroom and Chapter 1 teachers on their students' needs, progress, or concerns appear to be rare. Support program teachers are often unable to identify the reading instruction material their remedial students use in the regular classroom; thus, services in the two settings are generally independent of each other and unrelated. There are reports that regular classroom and reading resource teachers are often confused about who was responsible for which aspects of instructional planning and delivery. Reading is often taught as an "unrelated skill"—i.e., reading of reading texts, not as a skill needed for other learning and study areas.

As Zumwalt (1986) put it:

> The negative impact of ability grouping, pullout programs and the use of paraprofessionals to remediate reading—all practices found in Chapter 1 programs—are compounded by remedial reading programs which take the learner through a piecemeal sequence of unconnected objectives with heavy reliance on workbooks, an emphasis on decoding to the neglect of comprehension, and an insistence on mastery before moving on (Zumwalt, 1986, p. IV-210).

Often there is a lack of clarity about the purpose of compensatory education services, with divergent perceptions found among the Chapter 1 support staff, the

core classroom teachers, and administrators, resulting in instructional and resource fragmentation that further disadvantages the disadvantaged. What is needed is, as Allington and Johnson (1986) put it, is "congruence between curricula—what is to be taught, in what order, and using which materials," and congruence in the methods of instruction (p. VI-22). For example, Allington and Johnson see conflicts arising when the reading strategies taught and learned in one setting are radically different from those in the second setting; when the hierarchy of learning assumed in the two settings conflicts with one emphasizing decoding and the other focusing on comprehension; when the strategies to be learned differ from one context to another; when the teaching strategies differ radically from one setting to another (p. VI-23).

Cognitive Development. Chapter 1 instruction has been alternately described as *remedial*, *enrichment*, and *developmental*. If there is a trend, at least among the theorists and researchers, it is that curriculum and instruction for the disadvantaged should emphasize developmental over remedial learning. Studies indicate that Chapter 1 students receive more instruction in factual and lower-level skills and less in higher-order skills. For instance, in pullout mathematics programs, students are more likely to receive drill-and-practice in basic computational facts and skills than instruction in higher-order problem-solving skills. Cognitive science research in mathematics and reading underscores the importance of emphasis on meaning and understanding beginning in the early elementary grades. Yet, Chapter 1 students appear to be getting even less instruction in comprehension and meaning than their more advantaged counterparts, despite the fact that research indicates that they are capable of engaging in and profiting from such instruction. Studies of classroom processes in reading, for instance, show that teachers of low-

achieving students give far less emphasis to meaning and put more emphasis on "accurate reading" than they do for higher achieving students. The Commission on Reading (Anderson, Hiebert, Scott, & Wilkinson, 1985) concluded from its review of research: "From the very beginning children should be given *all* of the elements necessary for constructing meaning. This is important because reading at this early level is a new enterprise, and children must be made aware that reading is always directed toward meaning" (p. 9).

Based on her cognitive strategy research and that of others, Peterson (1986) concluded that low-achieving students can successfully be taught a variety of cognitive strategies—such as memory, elaboration, self-questioning, rehearsal, planning and goal setting, comprehension, problem-solving, hypothesis generating and study skills. Peterson has found that thinking skills intervention provides low-achieving students with strategies and processes that they can use in learning more effectively. Compensatory education should give greater emphasis to the development of students' cognitive strategies—the strategies needed for learning (learning how-to-learn skills) and put less emphasis on drill-and-practice remediation.

The quantity of time is not nearly as important as the quality of that time or the actual cognitive processes in which the students are engaged. Peterson's findings regarding mathematics are relevant not only for that subject:

> For lower-ability (or lower achieving) students, increasing their levels of engagement may be a necessary but insufficient condition for improving their higher level and conceptual thinking in mathematics. For these students, what might be needed is instruction that ensures not only that they are engaged, but also that they are engaged in effective cognitive processes and strategies that will lead to improving their achievement of higher-level skills in mathematics (Peterson, 1986, p. 11-32).

Reading. As noted, Chapter 1 instruction has been concentrated in two areas of learning: reading and mathematics. With respect to reading, Calfee (1986) observed that, despite "a quarter-century of sustained and earnest effort by school people, significant allocation of Federal resources, and substantial amounts of educational research on the matter, the correlation between economic status and reading achievement remains a basic reality in American schools" (p. IV-75). He saw this state of affairs being "reinforced by a number of forces: curriculum materials, textbook publishers, teacher and administrator training programs, state and district guidelines, testing programs, and the inertia of practices and conventions that have been in place for decades" (p. IV-76). Calfee does not see literacy as beginning with a concept of basic skills or minimum competency: "literacy for our society goes beyond the inherently 'receptive' perspective of taking print and turning it into something that is understood. The literate person can 'send' as well as 'receive'" (p. IV-40).

Drum and Calfee summarized the results of their survey of compensatory reading programs of the 1970s as follows:

> Compensatory reading funds supported aides and extra materials, and, to an increasing extent, reading specialists. The latter gave intensive instruction to small groups. Aides decreased effective class size and increased instructional time... Materials increase the available variety and make it more likely that if one approach doesn't work for the student an alternative is readily available. Otherwise, compensatory programs resemble "regular" reading instruction, for the most part. Funds increase the *amount* of instruction, without necessarily changing the *manner*...(Calfee, 1986, p. IV-67).

Calfee believes that "literacy rather than reading" should be the goal, with the literate person having "acquired an approach to language that transcends the

medium of print. The literate person, whether in reading or writing, speaking or listening (taking notes), is sensitive to features of the language that are invisible to the person who is illiterate" (p. IV-51). Calfee argues that even in the most advantaged schools students are not provided with an adequate grounding in literacy and that in compensatory education programs minimal reading skills rather than literacy is sought.

Reviewing the results of studies of direct instruction, Calfee believes that what is taught are relatively low-level skills which are "not transferable over time to increasing demands, nor do they transfer to the higher-level knowledge and skills that comprise literacy" (1986, p. IV-73). He suggests that more attention needs to be paid—for all students including the disadvantaged—to integrating the reading, writing and oral language elements of literacy and comprehension. Calfee, La Salle, and Cancino (1988) assert that

> Todays's schools must redefine literacy to include competence in using language for thinking and communicating. This kind of literacy is a high-level skill for surviving in modern society. Al children can become successful readers and thinkers if instruction is clear and focuses on transferable knowledge and skills. By helping students to acquire a metacognitive, strategic understanding of literacy, they will be more able to relate previous literacy experiences to new situations. In this manner, students will be able to *transfer* prior literacy skills and knowledge, rather than approaching each situation as if it were unique (Calfee, et. al., 1988, p. 15).

Mathematics. If remedial reading programs fail to provide opportunities for cognitive development, its mathematics counterpart narrows the students' focus even further. Romberg (1986) observed that compensatory programs in mathematics fell into three broad categories: enrichment programs, differential programs, and developmentally based programs. Enrichment programs were based on the argument "that low-income children lacked a variety of experiences and

needed these experiences and intellectual challenges in order to make them similar to the middle-class students" (p. IV-9). Romberg believes that these are probably not very effective since the time spent in school cannot change the cultural experiences acquired outside of school and are probably too indirect to meet the needs of students from low-income families.

Differential programs are based on the assumption that disadvantaged children need to be treated differently because they are different from middle-class children. The two kinds of differential programs developed are "independent-paced" and "highly-structured." Independent programs take into account only rate of learning—hierarchical behavioral objectives are developed, the idea of mastery learning is incorporated, standardized tests are used to assess mastery, and computers and other aids are used as management tools. In the highly-structured approach, arithmetic skills are taught using direct drill methods with an "emphasis on right answers rather than appropriate processes" (Romberg, 1986, p. IV-10). Developmentally based programs are geared to the level of a child's conceptual thoughts after his or her thought processes and cognitive functioning have been determined.

Romberg (1986) found all of these compensatory program approaches disturbing: "In fact, if one views mathematics as things human beings do such as abstracting, inventing, proving or applying...there is nothing in the programs...that would give low-income students an opportunity to do any important mathematics" (p. IV-11).

Like Calfee, Romberg (1986) argues that the mathematics curriculum taught all children is inappropriate. He argues that a mathematically sound program would provide all children—disadvantaged and advantaged—with an opportunity to learn mathematics. It would deal with the problem of fragmentation of mathematics, especially in compensatory programs, which have "separated mathematics into literally thousands of pieces, each taught independently of the others," resulting in low-level objectives which are then tested by "multiple-choice questions on concepts and skills [which] emphasize the independence rather than the interdependence of ideas and getting right answers rather than using reasonable procedures" (p. IV-11, 12).

Romberg (1986) criticizes most current mathematics programs, including compensatory mathematics programs, for conceiving of learners as passive absorbers of information which is then stored for easy retrieval. He is convinced that "by compensating for an assumed lack in [disadvantaged] children's background, educators have created differential opportunity for learning for these low-income students" so that compensatory programs probably "widen the gap of knowledge about mathematics between those who are affluent in our society and those who are not" (p. IV-14). By developing workbooks and associated tests, compensatory programs have defined the curriculum by the workbooks and have judged it by tests. Even the way computers are used has resulted in their being only another technology for providing workbooks. Romberg asserts that what is missing is the interconnectedness of ideas, conceiving of "math as a language and a science which orders the universe, a tool for representing situations, defining relationships, solving problems, and thinking," something all students are capable of comprehending (p. V-17).

Romberg argues that mathematics education as it exists in schools today is inadequate and that compensatory education mathematics programs reflect these inadequacies and go on to compound them. He advocates that a new contemporary mathematics program be developed and then the serious socio-political question regarding the consideration of individual differences with respect to the teaching of the common course of study be tackled.

Thinking Skills. One curriculum dimension which is being explored for its possible contribution to "correcting the special problems of low-achieving students," as Adams (1986) has put it, is the teaching of thinking skills. Adams notes that cognitive science research indicates that the human mind is not a "piecemeal catalog of knowledge" but rather, when one learns about a topic, the mind stores observations, facts, and events in an intricately interconnected bundle of information called a *schema*. These schemata serve to organize and to fill out information received and are "the means by which we are able to use our knowledge and experience to make sense" from this input (p. IV-92). How to teach youngsters to develop and use schemata in learning is the focus of teaching thinking skills. Adams suggests that content-free efforts to teach thinking skills are more likely to succeed than content-oriented approaches since the latter may be recalled and understood only in relation to the content. From her review of number of "thinking skills programs," Adams concludes: "For Chapter 1 students especially, the direct teaching of thinking promises to be the best institutionalizable means of developing the competencies and attitudes they need to make the most of their schooling and their lives" (p. IV-115). However, as another pullout activity

taught by someone other than the regular classroom teacher, a "thinking class" can create as many problems as it solves for Chapter 1 students.

Strategies for teaching students thinking skills are often related to broader learning how-to-learn skills. They include direct instruction to help youngsters with such aspects of playing the "role of student" as how to study, how to prepare a report, how to take tests, how to participate on cooperative learning teams, etc..

Challenge and Coherence. While Chapter 1 programs and services consist mainly of pullout programs for remedial reading and mathematics, they do not—and should not—be considered the whole of the curriculum for the disadvantaged. The curriculum for disadvantaged students should be a rich and balanced one, as rich and balanced as that provided high-achieving students. It should not be limited to a narrow conception of compensatory education as remedial education. A watered-down, diluted curriculum, limited to instruction aimed at success on tests of minimum skills, does not constitute an appropriate curriculum for the disadvantaged any more than it does for other students. This is not to say that student success on basic tests of reading and achievement is not important, but rather that minimal competencies are only a part of the total educational goals and objectives for all students, including the disadvantaged. While the gap in test scores may be closed somewhat by such efforts, the more significant total educational gap will only widen.

Disadvantaged students need access to a sound core or general education curriculum—reading and language arts, writing, mathematics, social studies, science, fine arts, health, physical education, and even possibly a second language.

They need access to vocational and technical curricula, if appropriate, and certainly to as rich an array of electives as is available to other learners. The skills, knowledge, understandings, and insights which constitute a general and common education (especially at the elementary level) are as essential for the disadvantaged child as for middle-class youngsters. They constitute the "cultural imperatives," and the remediation services of compensatory education should not impede access to this general education curriculum.

The most telling criticism of many Chapter 1 programs is that the pullout activities contribute to curricular fragmentation and result in the students "missing out" on significant portions of the core curriculum simply by not being in the classroom when instruction is provided. Chapter 1 students have been known to be out of the regular class to such an extent that they received no social studies or science instruction throughout their elementary school careers. It is not clear how widespread such an extreme outcome of pulling students out of the regular classroom is, but the generic problem is a real one. It can only be dealt with if there is school-wide planning involving both Chapter 1 and other staff members, and if staff and curriculum development efforts are aimed at the total school staff.

As long as compensatory education services and activities are perceived as the responsibility of a separate, parallel staff of special personnel, the regular classroom teachers will leave the problem to those teachers. Griffin (1986), for example, has proposed that Chapter 1 staff development programs "be used to integrate understanding of the special needs and prospects of and for Chapter 1 students throughout a school" (p. VI-54). Arguing that a school is a complex

environment consisting of many interacting variables which affect students and teachers, Griffin asserts that:

> Staff development that focuses the environment in all of its contextual complexity upon students' academic and social advancement is...more powerful than staff development that isolates teachers from one another concentrates upon segments of curriculum and instruction, creates "minicontexts" that may be in contrast to the larger context, and dilutes rather than strengthens the accumulated power of schooling upon student outcomes (p. VI-54).

There appears to be a growing consensus that goals and objectives of education for the disadvantaged should not differ from those of other children and that they should have access to essentially the same curriculum—recognizing that the curriculum available to other children may need improvement as well. The goals and objectives should not be "lower" for the disadvantaged or more "limited" or more "practical" than that for other children. However, the content and instructional strategies should be adapted in order to enhance the probabilities of the disadvantaged learners attaining these common goals an objectives. This is the essence of the notion of pedagogical differentiation.

TEACHERS, TEACHING, AND CLASSROOM ENVIRONMENT

Twenty years of compensatory education experience has produced a wealth of results from which to develop effective teaching models, and, in fact, quite a few educational researchers have recommended sweeping changes in the delivery of Chapter 1 services based on these results—or lack thereof. Some of their major recommendations are discussed below.

Active Instruction. Brophy (1986), from a comprehensive review of research on teacher behavior and student achievement, concluded that "schools that foster progress in academic achievement tend to be schools that place a high priority on doing so and follow up by adopting high but realistic expectations, coordinated instructional efforts, and periodic assessment of progress" (p. IV-125). He asserts that the most basic and consistently replicated findings link students' achievement gains to their opportunity to learn material, and, in particular, to the degree to which teachers carry the content to them personally through active instruction and direct supervision of their learning efforts" (p. IV-127). Brophy notes that "the key to maximizing achievement gains of Chapter 1 students (or any students, for that matter) appears to be maximizing the time they spend being actively instructed by their teachers or supervised as they work on assignments (assuming that both the instruction and the assignments are pitched at an appropriate level of difficulty and otherwise well-suited to the students' current needs)" (p. IV-125). Teachers should be business-like and task oriented and allocate most classroom time to activities with academic objectives rather than to personal adjustment of group dynamic objectives. This is not to say that teachers should not place a high priority on affective or social outcomes but that they should not replace achievement outcomes since affective and social goals contribute to cognitive and academic achievement as well. Moreover, there are affective correlates of socioeconomic status such as "the degree to which students feel secure and confident vs. anxious or alienated in the classroom" which have an impact on achievement outcomes (p. IV-146).

Brophy supports the notion of "active teaching" since students achieve more when they spend most of their time being taught or supervised rather than working on their own or not working at all.

> Active teaching connotes frequent lessons (whole class of small group, depending on grade level and subject matter) in which the teacher presents information and develops concepts through lecture and demonstration, elaborates this information in the feedback following responses to recitation or discussion questions, prepares the student for follow-up assignments by giving instructions and going through practice examples, monitors progress on assignments after releasing the students to work independently, and follows up with appropriate feedback and reteaching when necessary. *The teacher carries the content to the student personally rather than depending on curriculum materials alone to do so*, but conveys information mostly in brief presentations followed by recitation or application opportunities (Brophy, 1986, p. IV-129).

Brophy (1986) believes that program developers, using available research findings, are no longer differentiating their programs from other programs but "are concentrating on quality and comprehensiveness rather than uniqueness, borrowing elements from eclectic sources and weaving them into integrated approaches" (1986, p. IV-166). He concludes that the most effective approach to meeting the needs of Chapter 1 students "will be the systematic development of comprehensive programs of curriculum and instruction that draw...[on]...the full range of available knowledge in devising effective methods of accomplishing specified goals" (p. IV-166).

Slavin's (1987) findings about effective instruction for Chapter 1 students suggest that: (a) the setting for Chapter 1 services does not matter—what matters is nature of the program itself; (b) traditional pullout programs of the diagnostic-prescriptive type seem to make little difference with respect to sustained gains; and (c) effective programs differ markedly from the traditional pullout or in-class

Chapter 1 models and probably could not even be funded under existing Chapter 1 legislation.

The programs which Slavin and his colleagues at the Johns Hopkins Center for Research on Elementary and Middle Schools found to be effective in accelerating the school achievement of at-risk students included the following:

(a) comprehensive modifications of the regular classroom instructional program which were designed to make it possible for teachers to better meet a wide range of student needs;

(b) continuous-progress programs which permit students to proceed at their own pace through a well-defined sequence plus instruction in small groups of students at similar skill levels;

(c) cooperative learning programs designed to accommodate a wide range of student performance levels, with students working in small, mixed-ability learning teams;

(d) preventive tutoring programs where trained adult tutors work one-on-one with young students;

(e) remedial tutoring programs using adult volunteers or older students; and

(f) some of the available computer-assisted instruction programs (Slavin, 1987, pp. 111-114).

Relevance. Earlier compensatory education programs seemed to have paid more attention to affective goals and objectives and to the relevance of affect in nurturing cognition. Fantini and Weinstein (1969), for example, proposed a *contact curriculum* which would move from emphasis solely on cognitive, extrinic content to an equal emphasis on affective, inner content. Many curricula lack relevance for the disadvantaged because: (a) the teaching procedures and learning styles are not matched; (b) the material presented is not within or readily connected to learners' personal experience; (c) *what* is being taught and *how* it is being taught ignore the learners' *feelings* about their experiences; and (d) the

concerns of the learners are ignored. They argue that "what makes the most contact is that which is most 'relevant' to them and which makes a connection between the affective or feeling aspects and the cognitive or conceptualizing aspects of the learner" (p. 55). Teachers can be helped in selecting relevant content that deals with learner concerns by looking for cues from students which indicate concerns for self-identity, for greater connectedness, and for greater control over what is happening to them (pp. 53-54).

Bilingualism and Language Instruction. The number of children who enter school with limited or no English continues to grow and a sizeable proportion of the disadvantaged population in a number of districts are limited-English speakers. Bilingual education and teaching of English as second language (TESL) have become significant components of many compensatory education programs. At the time, bilingual education continues to be quite controversial—even to the point where there are movements to make "English the nation's official language" and block instruction in other languages. Paradoxically, there are also movements advocating second language/foreign language acquisition by all students.

There is simply too much research regarding the significance of the child's mother tongue in language acquisition and in all cognitive and affective development to be ignored or discounted. There seems to be consensus that language proficiency in English is essential for all students but that such proficiency can best be attained through an effective bilingual program. Few bilingual proponents argue that instruction in the native language should replace or take precedence over English, but most agree that the goal is language proficiency in both languages and that the native language can be used to teach English

proficiency. The issues are what kind of balance is to be sought in learning the two languages, what strategies should be employed to develop this two-language proficiency, what parts of the curriculum should be in which language, and when students should be moved to English-dominant classroom settings. For example, some linguisticians and language educators advocate content-based English language instruction—i.e., the teaching of English through the language of subject matter content, especially science, mathematics, and social studies. Many strategies regarding English language acquisition beg the question regarding the acquisition of literacy in the mother tongue first.

Cultural Pluralism. Peripherally related to the issues of bilingual education are the much broader concerns on the importance of cultural pluralism in the curriculum. Cultural pluralism and multicultural education are curriculum concerns not limited to the disadvantaged; rather, they are school-wide concerns. Curriculum goals, content, and instructional materials which aim at developing an understanding of the pluralistic world, which draw on the cultural heritage of various groups and societies, and which use the contemporary story of emerging nations to help pupils understand the story of America's development and its quandaries, all contribute to the cultural pluralistic curriculum.

Classroom Organization. The importance of instructional time and content coverage as variables which affect student achievement—what the literature often refers to as "Academic Learning Time" has been much studied. It is clear that the quantity of time is not nearly as important as the quality of that time or the actual cognitive processes in which students are engaged.

From their review of research concerning the effectiveness of Chapter 1, Kennedy, Birman, et al. (1986) conclude that learning may be facilitated "by providing small class sizes, even though these smaller groupings may occur for only a portion of the day" (p. 90). However, Chapter 1 programs may actually be hindering student achievement "by restricting the school's ability to create shared academic goals, high expectations, and strong achievement-oriented school culture that are now recognized to be important to student achievement" (p. 90). Consequently, they speculate that the achievement of disadvantaged learners might be improved by substantially reducing the size of their regular classes and incorporating Chapter 1 teachers more fully into the overall instructional program rather than having them function in isolation as many currently do.

Kennedy, Birman, et al.'s review of research suggests that such features as pullout and in-class programs and individualized instruction seem not to especially influence student achievement, while other features which are "outside the influence of Federal policy makers—the curriculum, the teachers' instructional strategies, the effective use of learning time in classrooms, and the culture of the school as a whole"—are important in affecting student achievement (1986, p. 96). Not suprisingly, they found that "the more opportunities students have to learn, the more they actually learn, and Chapter 1 programs are generally designed to provide students with additional instruction in reading and mathematics" (p. 91). However, because time allocated to Chapter 1 services is usually taken away from regular classroom instruction, the services may not represent an addition but simply a substitution, even though they are presumably more intensive than regular services.

Nurturing the Gifted. There is clear evidence that giftedness and talent are not the prerogative of any racial or ethnic group or social class; no population has either a monopoly on nor an absence of giftedness. For a good many years, there has been a recognition that the underrepresentation of minorities and the disadvantaged in various areas of specialized talent meant that these populations constitute the largest reservoir of untapped and undeveloped talent available to society. Thus, more than three decades age, a report of the Conservation of Human Resources Project (Bray, 1954) observed: "Superior performance in any society is limited by the number of individuals with a high order of intelligence but in our society the number of such individuals could be substantially increased through improving the opportunities for members of lower socioeconomic classes to become interested in and to acquire a good education" (p. 51).

While in general Chapter 1 students have been perceived as a homogeneous low-achieving group, lacking in any potential for the outstanding achievement which is considered giftedness, during the past decade or so there has been a growing interest in identifying and nurturing the so-called "gifted disadvantaged." This has required a significant change in attitudes toward, and perceptions of, minorities and the poor regarding their talent potential, a first step in developing procedures for identifying and educating those who are gifted among the disadvantaged. It has led to the use of multiple criteria and diverse procedures for identifying the gifted, relying on providing opportunities for demonstrating abilities rather than limiting identification to testing. Successful programs for recognizing and realizing giftedness among the disadvantaged seem to do the following:

- encourage creative, divergent approaches to study and learning;

- provide for solid learning of the traditional disciplines as a basis for high-level performance;
- attend to nurturing the learning how-to-learn skills;
- facilitate opportunities for mentoring or apprenticeships in order to experience gifted role models;
- deal with affective and cultural factors that can impede talent development; and
- extend instruction and learning beyond the classroom into the community.

Above all, successful programs work at creating a school 'climate for excellence'—a systematic approach to dealing with values, self-concepts, motivation, and aspirations of the entire community. It is the programs for the gifted disadvantaged which give meaning to the concept of equity and excellence.

Student Grouping. Although grouping students for instruction has been a controversial practice for almost a century, intermittently the controversy is reopened with even greater intensity. Nevertheless, grouping and tracking are widely practiced in America's schools at all levels. Recent studies and reviews of research on grouping by Oakes (1985) and Peterson, Wilkinson, and Hallinan (1984) have done little to resolve these perennial issues as they affect practice. There appears to be a good deal of evidence that low-income and minority children tend to be concentrated in lower-ability classes from which within-class groups are then formed. The wide use of pullout programs for Chapter 1 services also affects the kinds of within-class groupings formed. There is evidence to indicate that grouping affects self-esteem, motivation, attitudes, and other affective behaviors (Goldberg, Passow, & Justman, 1966). Goldberg, et al. concluded that "Insufficient and conflicting data are being used to support partisan views

concerning the consequences of grouping rather than to resolve the persistent issues" (1966, p. 21).

A review of research on cooperative learning by Wilkinson suggests that this approach seems to "show positive effects on academic achievement, but these effects are fully dependent on the particular settings, measures, designs and populations" (1986, p. IV-192). Cooperative learning techniques may also have a positive effect on race relations. Depending on whether the student's low ability is a function of a lack of basic skills or stems from deficits in higher-order cognitive processing, different cooperative learning techniques may result in improvement over traditional, individual or whole-class instruction (p. IV-193).

While Wilkinson (1986) agrees with Carter (1984) that: "Grouping students for instruction within Chapter 1 classes may be a useful educational practice to stimulate the learning of low-achieving, disadvantaged students," she suggests that a variety of factors should be considered in assigning students to groups, especially individual students' needs and characteristics; students should be reassigned and groups restructured as appropriate; a variety of grouping practices, including teacher-led and cooperative learning groups, should be used; teachers should be cognizant of both the intended and unintended consequences of using groups in their classes; students should be taught how to interact effectively in small groups and helped to acquire the needed cognitive and social skills; and "the quality of instruction provided by the teacher and the assistance provided by other students should be appropriate to the students' level and skills and should stimulate the learning of low-achievers" (Wilkinson, 1986, p. IV-194-5).

Parent Involvement. Since Chapter 1 and related compensatory education services generally deal with only a portion of the total educational experience in which disadvantaged children and youth are involved, De Kanter, Ginsburg, and Milne (1986) have proposed a new emphasis on home-based parent involvement as a major intervention strategy for promoting the development of low-achieving children. They point out that parents can have influence over student values, behavior in school, use of out-of-school time, and access to educational resources outside of school. Parents can exercise control over children's leisure time use by encouraging homework, reading, and conversation while limiting television viewing. Research has shown that a lack of resources at home, such as books and a place to study, affect school achievement. Also, Chapter 1 students either have less access to, or do not use, libraries, museums, and other community resources as do their more advantaged peers. De Kanter, et al. suggest that schools should consider ways in which they can support parents, such as informing them of the specific instructional objectives for their child, reporting more fully and regularly on the child's program and his\her progress, providing parents with materials and suggestions for promoting the child's education at home, and consulting more closely and regularly with parents about ways the school can work with parents to achieve the program's goals (1986, p. V-21).

Accelerated Schools for At-Risk Students. Perhaps one of the more promising new proposals for dealing with disadvantaged students—one which is currently being implemented and studied—is Levin's model for accelerating the education of at-risk students in all of their elementary subjects. Reviewing factors which inhibit the learning of the disadvantaged, Levin suggests that an effective approach:

- must focus on creating learning activities which are characterized by high expectations and high status for the participants.
- must set a deadline for closing the achievement gap so that, ultimately, educationally disadvantaged children will be able to benefit from mainstream instruction.
- must not only be faster paced and actively engage the interests of such children to enhance their motivation, but must include concepts, analysis, problem-solving, and interesting applications.
- will require the involvement of parents, the use of community resources, and the extensive participation of teachers in formulating the interventions that will be provided (Levin, 1987, pp. 23-25).

The Accelerated School is a transitional elementary school whose purpose is to bring children up to grade level by the end of the sixth grade. The goal is to do more than bring them up to grade level in the basic skills as measured by standardized test; rather, success is also measured by students' capabilities in problem solving and communication and their educational aspirations and self concept as learners. By eliminating serious achievement deficits, a major cause of dropping out, students will be more apt to complete their education.

Three major assumptions underlie the organizational approach of the Accelerated School. The strategy must: (a) enlist a unity of purpose among all participants; (b) empower all of the major participants, and raise both their sense of efficacy and of responsibility for the school's outcomes; and (c) build on the participants' considerable strengths rather than decry their weaknesses.

The specific features of Levin's (1977) Accelerated School Project include:

- *School-based governance*—"the actual choice of curriculum, instructional strategies, and other school policies should be decided by the instructional staff within the latitude set by the school district" (p. 31).

- *Goals*—"the governing body will establish a clear set of goals for students, parents, and staff with respect to the school and its activities" (p. 32).

- *Pupil and School Assessment*—Pupil performance must be assessed at school entry, a trajectory set for meeting the overall school goal, and periodic evaluations on wide-spectrum standardized tests and other assessments to determine whether students are on course. Periodic evaluations must be made to determine progress "towards other goals such as parental involvement, student and teacher attendance, student participation, and so on" (p. 33).

- *Nutrition and Health*—Schools must, in conjunction with families and other agencies in the community "diagnose and address nutritional and health care needs of disadvantaged students to improve their capacity to learn" (p. 34).

- *Curriculum*—The curriculum will be heavily language-based with language use in all of its forms—reading, writing, speaking, and listening—stressed across the curriculum and an "emphasis will be placed on analysis, concepts, problem-solving and applications in all subjects from the early primary grades" (p. 34).

- *Instructional Strategies*—Instructional strategies will reinforce the notion of acceleration: "the instructional pace must be adequate to keep students attentive and learning at a rate that is productive in contrast to the deliberate slowdown usually associated with remedial instruction" (pp. 35-36). Peer tutoring, heterogeneous grouping, cooperative learning, outside assignments or homework are some of the strategies which will be used.

- *Community Resources*—Adult tutors as well as personnel from local business and industry, social and youth agencies, will be used to offer enrichment programs after school, on weekends, and during summers.

- *Parental Participation and Training*—Parents and guardians will be asked "to affirm an agreement that clarifies the goals of the Accelerated School and the obligations of parents, students, and school staff" (p. 37). Parental obligations include a variety of supportive roles emphasizing the importance of the parental role. Parents will also "be given opportunities to interact with the school program and to receive training for providing active assistance to their children" (p. 38).

- *Extended Daily Session*—The school day will be extended until 5:00 p.m. with the added time providing for "rest, physical activities, the arts, and a time for doing independent assignments or homework" (p. 39).

In sum, accelerated education aims at substantially increasing the overall pace of learning. It is, as Levin (1986) notes, "systemic in character reflecting broad

changes in the nature of instruction, use of time, and attempts to enhance student capacity and effort" (p. 9). While acceleration has most commonly been applied to the education of intellectually gifted youngsters, there are a variety of other applications to other populations, all of them attempting "to increase learning through altering the quality of instructional services, time devoted to learning, and/or the capacity and effort of students with respect to learning" (p. 21).

Levin and his associates at the Accelerated Schools Project at Stanford have created two such schools which are being carefully studied to determine whether the accelerated elementary school program model will actually help at-risk children catch up with their non-disadvantaged peers by the end of the sixth grade, and what the issues and problems involved in implementing the concept are.

SUMMARY

Chapter 1 continues to be the cornerstone of the nation's schools' compensatory education efforts. Chapter 1 is not a single program nor is it the whole of compensatory education efforts. As Passow (1982) has observed: "The range and diversity of programs and strategies employed by urban schools to tackle their multitude of problems are impressive. They focus on different target populations, on different kinds of treatment and services, on various components of the educational system, and even on diverse goals and objectives" (p. 521).

Since its inception, the "success" of Title I/Chapter 1 and most, if not all other, compensatory programs, has been challenged, and the debate on whether such programs have made any difference continues (e.g., Savage, 1987). "Success" of compensatory programs depends, of course, on the goals being sought, and these

vary widely. The goal of many, if not most, Chapter 1 programs has been to close the gap between the children of the poor and of minorities and the children of the middle-class majority, but the "gap" is seldom defined in terms other than simply bringing the disadvantaged up to or above grade level in reading and mathematics, based on standardized test scores. This limited goal, while not unimportant, does not constitute the whole of the educational process for either the advantaged or the disadvantaged.

There are those who question the validity of this criterion as practically the sole basis for judging the effectiveness of compensatory education efforts. And, as Doyle (1986) has argued, disadvantaged children may be able to read and compute better but their ability to succeed academically may remain untouched since "the instructional designs typical of compensatory education fragment the curricular experiences of students and, thus fail to provide them with the coherent mental representations necessary to do school work" (p. IV-269).

Further, it is not unfair to characterize Chapter 1 as primarily, if not exclusively, a pullout program that focuses on the basic skills of reading and arithmetic, taught by a "Chapter 1 teacher" who may have an aide, and with "special materials." As such, it is often a program which labels and segregates its student population, limiting or depriving them of curricular opportunities which their peers may be engaged in while they are taken out of the regular classroom. As Savage (1987) points out, "these programs tended to segregate slow learners just at the time when special educators were hailing the virtues of mainstreaming. Pullout programs also tended to stigmatize children who lagged slightly behind their peers" (p. 108).

If Chapter 1 and other compensatory education efforts are to succeed in closing the gap, then curriculum and instruction will have to deal with "all of the experiences of the child under the guidance of the school." While that definition was deemed by some to be entirely too encompassing, its value was that it reminded educators that a child's education is of one piece—he/she is educated and socialized constantly, in many settings, under the auspices of many "teachers."

The unit for planning curriculum and instruction for disadvantaged children must be the school—its entire staff and all of its resources. The problem with the notion of compensatory education is that it is usually left to a few "special" staff members—Chapter 1 teachers and their aides and possibly the guidance counselor and/or social worker—to implement. Other staff members view themselves as "regular classroom teachers" and often do not conceive of themselves as having responsibility for the overall academic and developmental success of youngsters who, for a variety of reasons, are at a disadvantage in school. Chapter 1 teachers may continue to provide instruction in the basic skills in pullout settings but their curricula must be articulated and integrated with the ongoing curricula in the regular program. Chapter 1 programs should not contribute to further fragmentation and widening the overall academic and developmental gap between the disadvantaged and their more advantaged peers while perhaps raising their reading and arithmetic scores.

The reconceptualization of the goals of education to include literacy rather than decoding, numeracy rather than computing, and other broad goals for *all* children focuses on the need to develop new and better pedagogical strategies that will

enable all children to succeed at a common core curriculum which encompasses the knowledge, skills, insights, understandings, values and attitudes that society requires, and which are essential for self-fulfillment.

By now, educational planners and teachers have acquired insights and understanding regarding the concept of disadvantaged and the effects and effectiveness of various programs and strategies during the past quarter of a century. Next, they need to capitalize on research and experience, and design and implement eductional engagements and opportunitites which will "close the gap" by dealing with the disadvantaged in an integrated, articulated fashion, drawing on all of the personnel and material resources of the school, the family and the community. To do this does not mean that Chapter 1 should be eliminated, but rather that its personnel and material resources should join the mainstream of education for the optimum cognitive and affective development of those youngsters who enter school at a disadvantage for whatever reason. Only then will we be able to attain the twin goals of equity and excellence.

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